

AFN Decoder Configuration

Decoder PowerVu D9234



AFN Technologist
Telephone: (951) 413-2339
DSN: (312) 348-1339
24 HOURS A DAY
7 DAYS A WEEK

Equipment / Terminology

Satellite Dish – Metal or wire-mesh fiberglass plate used to reflect the RF signal from a satellite in orbit. Satellite dish must be level in order to make accurate azimuth and elevation adjustments. The satellite dish has an arm extending out to a focal length to support the LNB. The LNB and support arm is either off-set (not directly in the center of the dish) or prime focus (LNB above the center of dish and supported by three arms).

LNB – a small receiver sitting at the end of the satellite dish extension arm that sends the signal to the decoder. LNB can be orientated right hand, left hand, or circular polarization. Right or left hand polarization requires a skew adjustment which means rotating the LNB within its sleeve to a skew offset. The satellite dish and LNB are designed for prime focus or offset and for C band or Ku band. Most direct-to-home (DTH) dishes and LNB are offset and Ku band. AFN satellite signals are C band for international and Direct-to-Sailor (DTS) signals and Ku band for DTH satellite signals.

IRD – Integrated Receiver Decoder. Provides power to the LNB through the coaxial cable on the satellite dish. Receives the satellite signal from the LNB and decrypts, if necessary, and decodes the MPEG signal for television viewing or radio listening. IRD MUST be authorized to receive the services of the desired television and radio programs.

Preset – The Cisco D9834, D9835 and D9865 has the ability to enter preset configurations for the various AFN satellite networks. The D9865 presets are factory set but can be changed. Once changed these presets can be saved and remain in the IRD until deleted or changed and saved again. Because of satellite changes the factory setting of presets should be verified for accuracy. The customer (you) can verify and enter the correct presets for your region (satellite), add other free-to-air programs on your satellite, and/or other AFN regions. The presets, once saved, are available for recall by simply changing the decoder to that preset. MyAFN website provides a list all AFN services by decoder type and region.

The D9234 integrated receiver decoder (IRD) can store as many as 24 presets (0-23). Procedures for establishing and setting up Presets is available in the D9234 Installation and Operation (I/O) Guide posted on MyAFN web site. Additionally, spreadsheet with D9234 settings for all AFN services is located on the same web site.

Step 1 - Setup of the D9234 Integrated Receiver Decoder (IRD).

Procedures for setting up of the D9234 IRD in this guide requires the use of the remote control. If you do not have the remote control please refer to the D9234 I/O Guide on MyAFN web site for use of front panel controls.

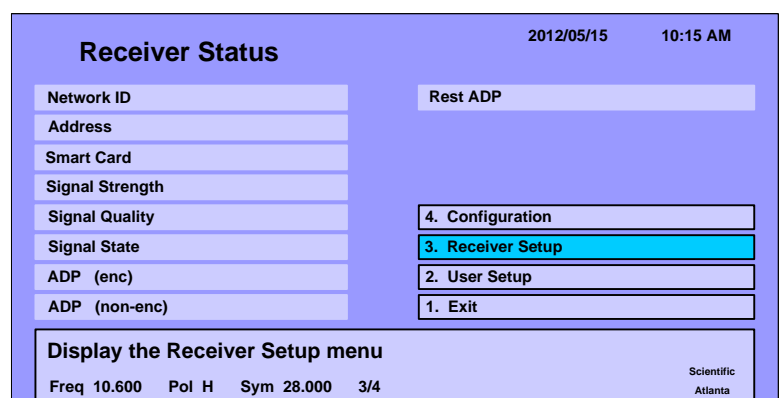
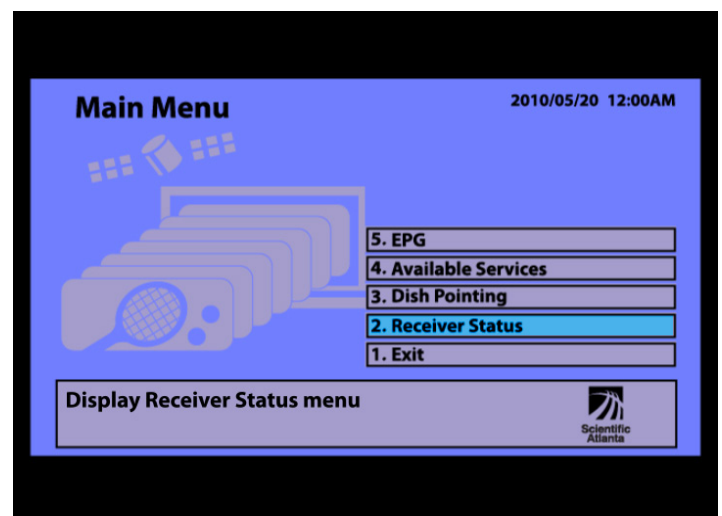
To select a menu or to change a setting move to the desired menu or to the desired field by using the up/down, left/right arrow buttons on the remote control.

To change a field setting, move to the field. For numeric fields press Select once; this clears the field of any previous numeric value. Enter the new numeric value. The IRD will enter the decimal point; just add additional zeros until you obtain the desired decimal point. Press Select to lock the new numeric value in the field. For all other non-numeric options, move to the field and press Select repeatedly until your setting appears. Move out of the field while your desired setting is displayed. After changes are locked move to Exit and press Select. This action displays the Save pop-up menu.

1.1 While the decoder is turned on, press the MENU button on the remote.

1.2 On the Main Menu, arrow up to RECEIVER STATUS and press Select on the remote control.

1.3 On the Receiver Status menu, arrow up to the Receiver Setup and press Select on the remote control.



The Receiver Setup menu is used for receiver setup of a single service or for inputting common settings for all Presets (0-23). Refer to Preset Setup in the D9234 I/O Guide.

All settings have been removed from the following screens to avoid confusion. Settings of AFN Pacific DTH from the D9234 IRD Setting and Presets spreadsheet will be used in the following examples. Substitute the AFN Pacific DTH settings with your region's settings from the D9234 IRD Setting and Presets spreadsheet available on MyAFN.

1.4 In the Receiver Setup menu use the up/down, right/left arrows to highlight the Freq Mode field.

1.4.1 Press Select repeatedly until the field indicates Downlink.

1.4.2 Use the down arrow to move off the Freq Mode field while it indicates Downlink.

The Receiver Setup screen displays various configuration options. The 'Freq Mode' field is highlighted in blue and shows 'Downlink'. Other fields include Frequency, L.O. Freq #1, L.O. Freq #2, Crossover, Polarization, FEC Rate, Symbol Rate, Network ID, AFC Level, Signal Strength, Signal Quality, Signal State, Find, 2. Search Setup, and 1. Exit. At the bottom, it shows 'Return to the Receiver Status menu', 'Preset: 00', 'Band: Ku', and 'Scientific Atlanta'.

1.5 High-light the Frequency field and press Select. Any information in this field will disappear. Use the remote control key pad and enter 1264700. As you enter the last two digits (00) you will see a decimal point appear. The key is to get the field to read 12.647; the number of zeros that follow is unimportant. When the field reads 12.647, disregard the number of zeros that follows, press Select to lock in the number.

The Receiver Setup screen displays various configuration options. The 'Frequency' field is highlighted in blue and shows '12.64700'. Other fields include L.O. Freq #1, L.O. Freq #2, Crossover, Polarization, FEC Rate, Symbol Rate, Network ID, AFC Level, Signal Strength, Signal Quality, Signal State, Find, 2. Search Setup, and 1. Exit. At the bottom, it shows 'Return to the Receiver Status menu', 'Preset: 00', 'Band: Ku', and 'Scientific Atlanta'.

1.6 Use down arrow to high-light the L.O. Freq #1 field. Press Select, any information that was in the field will disappear. Use the remote control keypad and enter 10.600. Again, the last two digits (00) are unimportant; they are used to force the decimal point to appear. We want 10.6 in the field and it doesn't matter how many zeros follow the six. Press Select to lock the number in the field.

The Receiver Setup screen displays various configuration options. The 'L.O. Freq #1' field is highlighted in blue and shows '10.600'. Other fields include Frequency, L.O. Freq #2, Crossover, Polarization, FEC Rate, Symbol Rate, Network ID, AFC Level, Signal Strength, Signal Quality, Signal State, Find, 2. Search Setup, and 1. Exit. At the bottom, it shows 'Return to the Receiver Status menu', 'Preset: 00', 'Band: Ku', and 'Scientific Atlanta'.

1.7 Use the down arrow to high-light the L.O. Freq #2 field. Press Select, any information that was in the field will disappear. Use the remote control keypad and enter 0 (zero). Press Select to lock the value in the field.

Receiver Setup		2012/05/15	10:15 AM
Freq Mode	Downlink	Network ID	
Frequency	12.64700	AFC Level	
L.O. Freq #1	10.600	Signal Strength	
L.O. Freq #2	0	Signal Quality	
Crossover		Signal State	
Polarization		Find	
FEC Rate		2. Search Setup	
Symbol Rate		1. Exit	
Return to the Receiver Status menu			
Preset: 00		Band: Ku	Scientific Atlanta

1.8 Use the down arrow to high-light the Crossover field. Press Select, any information that was in the field will disappear. Use the remote control keypad and enter 0 (zero). Press Select to lock the value in the field.

Receiver Setup		2012/05/15	10:15 AM
Freq Mode	Downlink	Network ID	
Frequency	12.64700	AFC Level	
L.O. Freq #1	10.600	Signal Strength	
L.O. Freq #2	0	Signal Quality	
Crossover	0	Signal State	
Polarization		Find	
FEC Rate		2. Search Setup	
Symbol Rate		1. Exit	
Return to the Receiver Status menu			
Preset: 00		Band: Ku	Scientific Atlanta

1.9 Use the down arrow to high-light the Polarization field. Press Select repeatedly. As you repeatedly press Select the menu will cycle through the option. Stop on H-Fixed. With H-Fixed in the Polarization field press the down arrow to the FEC Rate field. Moving out of the Polarization field locks in the new value.

Receiver Setup		2012/05/15	10:15 AM
Freq Mode	Downlink	Network ID	
Frequency	12.64700	AFC Level	
L.O. Freq #1	10.600	Signal Strength	
L.O. Freq #2	0	Signal Quality	
Crossover	0	Signal State	
Polarization	H-Fixed	Find	
FEC Rate		2. Search Setup	
Symbol Rate		1. Exit	
Return to the Receiver Status menu			
Preset: 00		Band: Ku	Scientific Atlanta

1.10 In the FEC Rate field press Select repeatedly until you have 3/4 in the field. Use the down arrow to move out of the field while 3/4 is selected and high-light the Symbol Rate field.

Receiver Setup		2012/05/15	10:15 AM
Freq Mode	Downlink	Network ID	
Frequency	12.64700	AFC Level	
L.O. Freq #1	10.600	Signal Strength	
L.O. Freq #2	0	Signal Quality	
Crossover	0	Signal State	
Polarization	H-Fixed	Find	
FEC Rate	3/4	2. Search Setup	
Symbol Rate		1. Exit	
Return to the Receiver Status menu			
Preset: 00		Band: Ku	Scientific Atlanta

1.11 Within the Symbol Rate field press Select; this clears any previous entries from the field. Using the remote control keypad enter 280000. The IRD will enter a decimal point as you input the 0 (zero). The field should read 28.000; the decimal point after the 8. With the correct value in the field press Select to lock the field.

2012/05/15 10:15 AM

Receiver Setup

Freq Mode	Downlink	Network ID
Frequency	12.64700	AFC Level
L.O. Freq #1	10.600	Signal Strength
L.O. Freq #2	0	Signal Quality
Crossover	0	Signal State
Polarization	H-Fixed	Find
FEC Rate	3/4	2. Search Setup
Symbol Rate	28.0000	1. Exit

Return to the Receiver Status menu

Preset: 00 Band: Ku Scientific Atlanta

1.12 Using the up arrow and the right arrow, high-light the Network ID field. Press Select to clear the field and enter 4 using the remote control keypad. Press Select again to lock in the Network ID.

2012/05/15 10:15 AM

Receiver Setup

Freq Mode	Downlink	Network ID
Frequency	12.64700	AFC Level
L.O. Freq #1	10.600	Signal Strength
L.O. Freq #2	0	Signal Quality
Crossover	0	Signal State
Polarization	H-Fixed	Find
FEC Rate	3/4	2. Search Setup
Symbol Rate	28.0000	1. Exit

Return to the Receiver Status menu

Preset: 00 Band: Ku Scientific Atlanta

Below the Network ID field are four fields associated with the satellite signal coming to the IRD from the LNB. These fields are NOT user setup or adjustable; they simply report the satellite signal condition at the LNB with the exception of Signal State. Signal State reports the condition of the IRD based upon the signal coming from the LNB.

The Find field is a tool to search for a signal. Please refer to the D9234 I/O Guide, page 18 to learn more about the Find option.

1.13 With the Network ID locked into its field arrow down to Exit and press Select. A Save Changes menu option will appear. Press 1 on the remote control keypad and press Select. You have now saved all Receiver Setup parameters required for your region.

2012/05/15 10:15 AM

Receiver Setup

Freq Mode	Downlink	Network ID
Frequency	12.64700	AFC Level
L.O. Freq #1	10.600	Signal Strength
L.O. Freq #2	0	Signal Quality
Crossover	0	Signal State
Polarization	H-Fixed	Find
FEC Rate	3/4	2. Search Setup
Symbol Rate	28.0000	1. Exit

Save Changes ?
1: Yes
2: No
3: Cancel

Return to the Receiver Status menu

Preset: 00 Band: Ku Scientific Atlanta

NOTE: Upon exiting the Receiver Setup menu you will return to the Receiver Status menu which also has Signal Strength, Signal Quality and Signal State. If your antenna is aligned to the satellite Signal State will indicate Lock, +Signal. If it indicates No Lock please verify your Receiver Setup

settings. If your Receiver Set is correct then your satellite antenna may need to be aligned to the satellite. Please refer to Satellite Antenna Alignment if you need to align your satellite antenna.